IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Inventorship	Bert Newell
Appellant/Applicant	Hewlett-Packard Company
Group Art Unit	2625
Examiner	DICKERSON, Chad S.
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Title: A Method of Processing a Print Batch in a Print Device

SECOND APPEAL BRIEF

To: MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

As required under 37 C.F.R. §41.37(a), this brief is filed in response to the Office Action dated January 6, 2010 re-opening prosecution, and is filed within two months of the Notice of Appeal filed in this case on April 6, 2010, and is in furtherance to the Notice of Appeal.

This brief contains items under the following headings as required by 37 C.F.R. §41.37 and M.P.E.P. §1206:

I. Real Party In Interest
II. Related Appeals, Interferences, and Judicial Proceedings
III. Status of Claims
IV. Status of Amendments
V. Summary of Claimed Subject Matter
VI. Grounds of Rejection to be Reviewed on Appeal
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I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, L.P., a limited partnership established under the laws of the State of Texas and having a principal place of business at 11445 Compaq Center Drive West, Houston 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are twenty (20) claims pending in this application.

B. Current Status of Claims

1. Claims canceled: 2, 4, 9, and 11-13.
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1, 3, 5-8, 10, and 14-26.
4. Claims allowed: none.
5. Claims rejected: 1, 3, 5-8, 10, and 14-26.

C. Claims on Appeal

The claims on appeal are claims 1, 3, 5-8, 10, and 14-26.

IV. STATUS OF AMENDMENTS

Appellant last amended the claims in an Amendment and Response filed on March 12, 2009. Therefore the claims on appeal (as reflected in the claim appendix) are the claims presented in the Amendment and Response filed on March 12, 2009 and have already been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following is provided pursuant to Rule 41.37(c)(1)(v) which requires "a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, which shall refer to the specification by page and line number, and to the drawings if any, by reference characters." Nothing in this Section V should be construed to limit the scope of any of the claims involved in the appeal, which are enumerated in full in the Appendix to this Appeal Brief.

According to claim 1, a method of processing a print batch in a print device (100 in FIG. 1; para. [0018]-[0026]), comprising: storing on a memory storage device (115 in FIG. 1; [0023], [0029]-[0030]) characteristics of a plurality of print jobs (300 in FIG. 3 and 6; [0037], [0047]) contained in said print batch; evaluating by a processor residing on said print device (100 in FIG. 1) said characteristics of said print jobs (300 in FIG. 3 and 6); and independently determining by the processor a pick order (215 in FIG. 2; para. [0030]), independently determining a transfer order (225 in FIG. 2; para. [0031], [0031], and [0042]), and independently determining a delivery order (235 in FIG. 2; para. [0033], [0042]) based, at least in part, on said characteristics (300 in FIG. 3 and 6) to increase efficiency and adaptability of processing each print batch, such that the picking order, the transfer order, and the delivery order are each distinct from one another for a print engine (130 in FIG. 1; para. [0018], [0024], [0025], [0029], [0035], [0040], [0041], [0048]) configured to form images on a plurality of media corresponding to said print jobs; and outputting said plurality of print jobs without having to reorder the print jobs within the print batch.

According to claim 8, a method of processing a print batch in a print device (100 in FIG. 1; para. [0018]-[0026]), comprising: storing on a data storage device (115 in FIG. 1; [0023], [0029]-[0030]) of a formatter (110 in FIG. 1; [0018], [0022]-[0024], [0028]-[0029], [0036], [0042]-[0043]) a print batch that includes a plurality of print jobs; evaluating by an imaging component (120 in FIG. 1; [0018], [0024], [0029]-[0031], [0037]-[0047]) characteristics (300 in FIG. 3 and 6; [0037], [0047]) of said print batch to independently determine a pick order (215 in FIG. 2; para. [0030]) to increase efficiency of picking media sheets; picking by a print engine (130 in FIG. 1; para. [0018], [0024], [0025], [0029], [0035], [0040], [0041], [0048]) said media sheets according to said pick order; evaluating by the imaging component (120 in FIG. 1) said characteristics (300 in FIG. 3 and 6) to independently determine a transfer order (225 in FIG. 2; para. [0031], [0031], and [0042]) of said print jobs to increase efficiency of transferring said print jobs from said formatter (110 in FIG. 1) to an imaging component (120 in FIG. 1); transferring said print jobs from said formatter (110 in FIG. 1) to said imaging component (120 in FIG. 1) based on said transfer order (225 in FIG. 2); forming images by said print engine (130 in FIG. 1) corresponding to said print jobs on media sheets; evaluating by the imaging component (120 in FIG. 1) said characteristics (300 in FIG. 3 and 6) to independently determine a delivery order (235 in FIG. 2; para. [0033], [0042]) of said media sheets to increase efficiency of delivering said media sheets; and delivering by said print engine (130 in FIG. 1) said media sheets to an output portion of said print device (100 in FIG. 1) based on said delivery order.

According to claim 15, a print device (100 in FIG. 1; para. [0018]-[0026]), comprising: a formatter (110 in FIG. 1; [0018], [0022]-[0024], [0028]-[0029], [0036], [0042]-[0043]) configured to pool a batch of print data, wherein said batch includes a plurality of print jobs; a processor having an imaging component (120 in FIG. 1; [0018], [0024], [0029]-[0031], [0037]-[0047]) residing thereon, wherein said imaging component (120 in FIG. 1) is configured to access batch information about said batch, including print media type, image size, image processing time, or image forming time, and, based on said batch information, to independently determine a pick order (215 in FIG. 2; para. [0030]) for different types of print media to be used for different print jobs in order to increase picking efficiency, independently determine a transfer order (225 in FIG. 2; para. [0031], [0031], and [0042]) for transferring rasterized print job

data to said imaging component (120 in FIG. 1) in order to increase transfer efficiency, and independently determine a delivery order (235 in FIG. 2; para. [0033], [0042]) of said print jobs in order to increase delivery efficiency, such that the picking order, the transfer order, and the delivery order are each distinct from one another; and a print engine (130 in FIG. 1; para. [0018], [0024], [0025], [0029], [0035], [0040], [0041], [0048]) configured to form images on a plurality of media corresponding to said print jobs.

According to claim 19, a printing system (100 in FIG. 1; para. [0018]-[0026]), comprising: means (120 in FIG. 1; [0018], [0024], [0029]-[0031], [0037]-[0047]) for evaluating characteristics of a print batch (300 in FIG. 3 and 6; [0037], [0047]); and means (300 in FIG. 3 and 6; [0037], [0047]) for independently determining a pick order (215 in FIG. 2; para. [0030]), independently determining a transfer order (225 in FIG. 2; para. [0031], [0031], and [0042]), and independently determining a delivery order (235 in FIG. 2; para. [0033], [0042]) based on said characteristics, wherein the picking order, the transfer order, and the delivery order are either distinct from one another or the same as one another.

According to claim 20, the system (100 in FIG. 1; para. [0018]-[0026]) of claim 19 further comprising means for picking media according to said pick order (215 in FIG. 2; para. [0030]), transferring print jobs of said print batch according to said transfer order (225 in FIG. 2; para. [0031], [0031], and [0042]), and delivering said media according to said delivery order (235 in FIG. 2; para. [0033], [0042]).

According to claim 21, the system (100 in FIG. 1; para. [0018]-[0026]) of claim 19 further comprising means (120 in FIG. 1; [0018], [0024], [0029]-[0031], [0037]-[0047]) for forming an image on said media.

The summary is set forth in several exemplary embodiments that correspond to the independent claims. It is noted that dependent claims containing means plus function are argued separately and therefore are summarized above. Discussions about elements and recitations to these claims can be found at least at the cited locations in the specification and drawings.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Office Action dated January 6, 2010 and re-opening prosecution rejected the claims as follows:

1) Claims 1, 3, 5-8, 10, 14-18, and 22-26 stand rejected under 35 U.S.C. §112 for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2) Claims 8, 10, 14-21 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,715,379 to Pavlovic et al. ("Pavlovic").
3) Claims 1, 3-7, and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of U.S. Patent No. 7,092,117 to Kageyama et al. ("Kageyama").
4) Claim 23 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of U.S. Patent Publication No. 2005/0102442 to Ferlitsch ("Ferlitsch").
5) Claim 24 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama and further in view of U.S. Patent Publication No. 2003/0227651 to Mathieson ("Mathieson").
6) Claim 25 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama and Ferlitsch.
7) Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama and further in view of U.S. Patent No. 6,618,167 to Shah ("Shah").

Appellant requests the Board to review each of these grounds of rejection.

VII. ARGUMENT

Claim Objections

Previously, the Examiner had properly noted that the new claims were improperly numbered and that claims 22-25 and should be renumbered 22-26. The

Objection has been withdrawn, and the Examiner refers to the claims in the Office Action using the proper claim numbering. Therefore, Applicant shows the proper claim numbering in the Claims Appendix.

Now the Examiner also properly notes that claim 21 should depend from claim 20 instead of claim 19 in order to give "said media" proper antecedent basis. Appellant agrees and would be willing to enter an amendment to this effect.

First Rejection - 35 U.S.C. §112

Claims 1, 3, 5-8, 10, 14-18, and 22-26 stand rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent Claims 1, 8 and 15

The Examiner states that the term "to increase efficiency and adaptability of processing each batch" in claims 1, 8, and 15 is a relative term and renders the claim indefinite. The Examiner further states that the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Appellant respectfully disagrees. The claims are directed to processing a print batch in a print device, which includes storing characteristics of each print job in the print batch, evaluating the characteristics, and independently determining a pick order, a transfer order, and a delivery order based on the evaluated characteristics. Accordingly, the claims provide for the independent and dynamic determination of the pick order, the transfer order, and the delivery order of print jobs received in a print device. As a result, the orders may be independent from one another and may be determined according to the specific characteristics of each print job. By independently determining the orders, the method increases the efficiency and adaptability of the processing of each print batch over a system which does not independently determine the orders, as would be readily apparent to one having ordinary skill in the art. See, e.g., the specification at para. [0015] and compare this to

traditional print devices discussed in the specification at para. [0003]-[0004]. The print jobs within the print batch do not need to be reassembled or reordered for printing and therefore increase efficiency of processing each print job. Therefore, Applicant believes that the Section 112 rejection is improper.

Dependent Claims 3, 5-7, 10, 14, 16-18, and 22-26

Claims 3, 5-7, 10, 14, 16-18, and 22-26 stand rejected "because of their dependency on a rejected independent claim. Therefore, Appellant believes the rejection of the dependent claims is moot for the reasons discussed above for the independent claims.

Second Rejection - 35 U.S.C. §102(b)

Claims 8, 10, and 14-21 stand rejected under 35 U.S.C. 102(b) as being anticipated by Pavlovic.

It is well settled that invalidity for anticipation requires that a single prior art reference disclose each claim recitation. Every element must be literally present, arranged as in the claim.

Independent Claim 8

Upon re-opening prosecution, the Examiner continues to read more into the reference than is fairly presented. If Pavlovic fairly taught the claim recitations, such teachings would be clear, and the Examiner's mere conjecture on pages 3-6 of the most recent Office Action would not be necessary.

Given a fair interpretation, Pavlovic discloses a digital printing system including a plurality of decomposers that operate simultaneously and independently to output page images of decomposed data at random times. The output page images are retained in a buffer until requested by a marker which controls the printer hardware. A buffer manager records where in the buffer each page is stored so that the necessary page images can be reassembled for printing. See, e.g., Abstract.

On the other hand, Applicant's claims are directed to processing a print batch, wherein characteristics of the print jobs in the print batch are evaluated to independently determine (1) a pick order (e.g., order which print media or paper is selected), (2) a transfer order (order which the print jobs pooled in the formatter are transferred to the imaging component), and (3) a delivery order (e.g., order which the final finished or physically imaged pages are to be formed and delivered to the print engine for output at the print tray). The print jobs within the print batch do not need to be reassembled or reordered for printing and therefore increase efficiency of processing each print job.

Specifically, claim 8 recites "evaluating by an imaging component characteristics of said print batch to independently determine a pick order to increase efficiency of picking media sheets; . . . evaluating by the imaging component said characteristics to independently determine a transfer order of said print jobs to increase efficiency of transferring said print jobs from said formatter to an imaging component; . . . evaluating by the imaging component said characteristics to independently determine a delivery order of said media sheets to increase efficiency of delivering said media sheets."

The claim recites independently determining each of these orders. Even assuming for purposes of argument that Pavlovic discloses three ordering processes [as defined by the Examiner], Pavlovic still does not disclose independently determining these orders. To the contrary, Pavlovic teaches against "independently determining" these orders to "increase efficiency" because Pavlovic is based on the information specified in the job description. The Examiner has failed to provide any evidence or succinct reasoning that would support anything to the contrary.

In fact, Pavlovic teaches against an imaging component evaluating characteristics of the print batch and "independently determining" to "increase efficiency" because Pavlovic's system control uses the information specified in the job description for ordering the print jobs.

Indeed, the Examiner states on page 12 of the most recent Office Action that "in accordance with the job description, the system control chooses the tray that contains the specified paper to be used in the feeding process for imaging" and on page 13 of the most recent Office Action that "[t]he system evaluates the job description and the data stream of the job information and decides based on these characteristics [i.e., based on the job description] what job data is output to the printing hardware." Accordingly, there is no independent determination; everything is as specified by the job description (see, e.g., the example of page order in Pavlovic at col. 9, lines 20-51).

The Examiner explains on pages 5-6 of the most recent Office Action "since the decision to pick a certain media sheet, transfer a job in different manners to the marker depending on the load conditions and to place a printed job on a certain output tray is based solely on the evaluation of the job description by the system control (108) and these determinations do not have any affect [sic – "on"] any of the above determinations, the Examiner believes that the pick, transfer and delivery order are all performed independently of one another."

To the contrary, Pavlovic describes in the example at col. 9, lines 20-51 (within the section cited by the Examiner on page 14 of the most recent Office Action) that the transfer and delivery order are dependent on one another. In this example, Pavlovic describes "[w]hen marker 112 requires the multi-task job to be printed, marker 112 submits a request to buffer manager 120 which, in response, acts to retrieve the page images of each decomposed file in spool 116 in the desired page image order. Once again, because in the particular example the print is to be stapled and therefore requires that the prints be made in reverse (N to 1) page order [i.e., delivery order], the data for the page images must be submitted from spool 116 to printer hardware 114 [i.e., transfer order] in reverse order."

The Office Action states on page 5 of the most recent Office Action that "[t]he Examiner sees no connection of how the media sheets being delivered to a certain tray delivery order] as anything to do with the manner in which print information is delivered to the marker and printing hardware [transfer order]." Appellant has added

brackets [] in the above quote from Pavlovic and similarly in the Examiner's contention to clarify this.

Furthermore, claim 8 recites that each of these orders are independently determined "to increase efficiency." The print jobs within the print batch do not need to be reassembled or reordered for printing, increasing efficiency of processing each print job. The Examiner previously disagreed with Appellant that this was a distinguishing feature. Specifically, the Examiner stated that if Pavlovic was to operate with only two jobs in the buffer, there would be no reordering of the jobs since the jobs are no longer processed in random order. However, this interpretation is counter to the express disclosure in Pavlovic. That is, Pavlovic discloses "printing system including a plurality of decomposers that operate simultaneously and independently to output page images of decomposed data at random times. A buffer manager records where in the buffer each page is stored so that the necessary page images can be reassembled for printing." Abstract.

Now the Examiner further explains that the system in Pavlovic is able to process multiple formats, but if one processor is used for each format, the format only processes one job at a time, and that the processor rendering this format processes these files sequentially. See page 3 and footnotes 1 and 2 in the most recent Office Action. The Examiner refers to Pavlovic at col. 7, line 11 to col. 8, line 66, col. 10, lines 15-32, and Figure 3, in support of his explanation.

However, the example in the cited portion of Pavlovic actually describes where a client submits a print job having four portions which are intended to be printed as a single document and stapled. The four tasks of the job are of different formats (i.e., a PostScript file, an ASCII file, a PCL file, and another PostScript file). See Pavlovic at col. 7, lines 11-18. Pavlovic does not explain anything about only being able to process one job at a time. Again, to do so would be contrary to the express teachings of Pavlovic.

Even if Pavlovic could be interpreted based on the Examiner's conjecture as using one processor for each format and only processing one job at a time so that the processor renders the files sequentially, Appellant does not understand how this

would teach the claim recitations of "independently determining" each of the orders to "increase efficiency."

For at least the foregoing reasons, the Examiner has failed to establish that independent claim 8 is anticipated.

Dependent Claims 10 and 14

Claims 10 and 14 depend from claim 8, which is believed to be allowable. Therefore, claims 10 and 14 are also believed to be allowable for at least the same reasons as claim 8.

Independent Claim 15

Claim 15 includes similar recitations as discussed above for claim 8. In addition, claim 15 further recites "such that the picking order, the transfer order, and the delivery order are each distinct from one another." There is no disclosure in Pavlovic that the picking order, the transfer order, and the delivery order are each distinct from one another. To the contrary, each of the orders in Pavlovic is determined by the page order in the job description.

For at least the foregoing reasons, the Examiner has failed to establish that independent claim 15 is anticipated.

Dependent Claims 16-18

Claims 16-18 depend from claim 15, which is believed to be allowable. Therefore, claims 16-18 are also believed to be allowable for at least the same reasons as claim 15.

Independent Claim 19

Claim 19 recites "means for independently determining a pick order, independently determining a transfer order, and independently determining a delivery order based on said characteristics, wherein the picking order, the transfer order, and the delivery order are either distinct from one another or the same as one another" (emphasis added). Pavlovic does not disclose or suggest at least these recitations as discussed above for claim 15.

For at least the foregoing reasons, the Examiner has failed to establish that independent claim 19 is anticipated.

Dependent Claims 20-21

Claims 20-21 depend from claim 19, which is believed to be allowable. Therefore, claims 20-21 are also believed to be allowable for at least the same reasons as claim 19.

Rejections under 35 U.S.C. §103(a)

In its decision, KSR Int'l Co. v. Teleflex, Inc., No 04-1350 (U.S. Apr. 30, 2007), the Supreme Court reaffirmed application of the Graham factors in making a determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are: (1) determining the scope and contents of the prior art; (2) ascertaining the differences between the prior art and the claims in issue; (3) resolving the level of ordinary skill in the pertinent art; and (4) evaluating evidence of secondary consideration. Even if all of the prior art elements are disclosed by separate prior art references, the Examiner still must identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.

Third Rejection - 35 U.S.C. §103(a)

Claims 1, 3-7, and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama.

Independent Claim 1

Claim 1 recites "independently determining a pick order, independently determining a transfer order, and independently determining a delivery order based, at least in part, on said characteristics, such that the picking order, the transfer order, and the delivery order are each distinct from one another" (emphasis added). Pavlovic does not teach or suggest at least these recitations, as discussed above for claim 15. Nor does Kageyama supply support for the missing recitations in Pavlovic.

In addition, claim 1 recites "outputting said plurality of print jobs without having to reorder the print jobs within the print batch." Pavlovic has to reassemble or reorder the separately processed portions of each print job before printing or Pavlovic would not output the desired print jobs. Applicant is not concerned with reassembling anything because the print jobs are distinct within the print batch.

The Examiner modifies Figure 3 by explaining that "if the system were to operate in a case of the system only containing two jobs, Postscript file 1 and Postscript file 2, these jobs could be placed in the buffer in the order in which they are to be received." Applicant notes that even disregarding what is clearly shown in Figure 3, the jobs I and II are still reordered (see lines on left hand portion of the drawing). Accordingly, the separately processed portions of each print job I and II still need to be reassembled or reordered before printing or Pavlovic would not output the desired print jobs. To further modify the clear teachings in Pavlovic, as suggested by the Examiner, wherein the jobs I and II are placed in the buffer in the order in which they are to be received, Pavlovic would cease to provide any advantage to the user. That is, the decomposer would no longer ouput page images of decomposed data at essentially random times, as desired and expressed, e.g., in the Abstract.

For at least the foregoing reasons, the Examiner has failed to establish that independent claim 1 is obvious.

Dependent Claims 3-7

Claim 4 is canceled and therefore the rejection is in error and/or moot. Claims 3 and 5-7 depend from claim 1, which is believed to be allowable. Therefore, claims 3 and 5-7 are also believed to be allowable for at least the same reasons as claim 1.

Dependent Claim 22

Claim 22 depends from claim 1, which is believed to be allowable. Therefore, claims 22 is also believed to be allowable for at least the same reasons as claim 1.

Fourth Rejection - 35 U.S.C. §103(a)

Claim 23 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Ferlitsch.

Dependent Claim 23

Claim 23 depends from claim 1, which is believed to be allowable. Therefore, claim 23 is also believed to be allowable for at least the same reasons as claim 1.

Fifth Rejection - 35 U.S.C. §103(a)

Claim 24 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama and further in view of Mathieson.

Dependent Claim 24

Claim 24 depends from claim 1, which is believed to be allowable. Therefore, claims 24 is also believed to be allowable for at least the same reasons as claim 1.

Sixth Rejection - 35 U.S.C. §103(a)

Claim 25 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama and further in view of Ferlitsch.

Dependent Claim 25

Claim 25 depends from claim 1, which is believed to be allowable. Therefore, claims 25 is also believed to be allowable for at least the same reasons as claim 1.

Seventh Rejection - 35 U.S.C. §103(a)

Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pavlovic in view of Kageyama and further in view of Shah.

Dependent Claim 26

Claim 26 depends from claim 1, which is believed to be allowable. Therefore, claims 26 is also believed to be allowable for at least the same reasons as claim 1.

Conclusion

For the reasons provided herein, Appellant respectfully requests the Board to rule that the rejections of the claims are improper.

Respectfully Submitted,

/Mark D. Trenner/

Dated: June 5, 2010 By: .....

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VIII. CLAIMS APPENDIX

1. A method of processing a print batch in a print device, comprising:

storing on a memory storage device characteristics of a plurality of print jobs contained in said print batch;

evaluating by a processor residing on said print device said characteristics of said print jobs; and

independently determining by the processor a pick order, independently determining a transfer order, and independently determining a delivery order based, at least in part, on said characteristics to increase efficiency and adaptability of processing each print batch, such that the picking order, the transfer order, and the delivery order are each distinct from one another for a print engine configured to form images on a plurality of media corresponding to said print jobs; and

outputting said plurality of print jobs without having to reorder the print jobs within the print batch.

2. (canceled).

3. The method of claim 1, wherein said characteristics comprise an image receiving media type, an image size, an image processing time, or an image forming time.

4. (canceled).

5. The method of claim 1, wherein said processor comprises an imaging component.

6. The method of claim 1, further comprising forming at least one image corresponding to each of said print jobs on an image receiving media

7. The method of claim 6, wherein said images are formed according to said delivery order.

8. A method of processing a print batch in a print device, comprising:

storing on a data storage device of a formatter a print batch that includes a plurality of print jobs;

evaluating by an imaging component characteristics of said print batch to independently determine a pick order to increase efficiency of picking media sheets;

picking by a print engine said media sheets according to said pick order;

evaluating by the imaging component said characteristics to independently determine a transfer order of said print jobs to increase efficiency of transferring said print jobs from said formatter to an imaging component;

transferring said print jobs from said formatter to said imaging component based on said transfer order;

forming images by said print engine corresponding to said print jobs on media sheets;

evaluating by the imaging component said characteristics to independently determine a delivery order of said media sheets to increase efficiency of delivering said media sheets; and

delivering by said print engine said media sheets to an output portion of said print device based on said delivery order.

9. (canceled).

10. The method of claim 8, wherein said characteristics comprise an image receiving media type, an image size, an image processing time, or an image forming time.

11. (canceled).

12. (canceled).

13. (canceled).

14. The method of claim 8, wherein forming said images includes using said imaging component to convert data contained in said print job to commands; conveying said commands to a print engine, and forming said images in response to said commands.

15. A print device, comprising:

a formatter configured to pool a batch of print data, wherein said batch includes a plurality of print jobs;

a processor having an imaging component residing thereon, wherein said imaging component is configured to access batch information about said batch, including print media type, image size, image processing time, or image forming time, and, based on said batch information, to independently determine a pick order for different types of print media to be used for different print jobs in order to increase picking efficiency, independently determine a transfer order for transferring rasterized print job data to said imaging component in order to increase transfer efficiency, and independently determine a delivery order of said print jobs in order to increase delivery efficiency, such that the picking order, the transfer order, and the delivery order are each distinct from one another, and

a print engine configured to form images on a plurality of media corresponding to said print jobs.

16. The print device of claim 15, wherein said formatter is configured to perform raster image processing.

17. The print device of claim 15, wherein said print engine comprises an inkjet print head.

18. The print device of claim 15, wherein said print engine is configured to pick said media according to said pick order and to deliver said media according to said delivery order.

19. A printing system, comprising:

means for evaluating characteristics of a print batch; and

means for independently determining a pick order, independently determining a transfer order, and independently determining a delivery order based on said characteristics, wherein the picking order, the transfer order, and the delivery order are either distinct from one another or the same as one another.

20. The system of claim 19, and further comprising means for picking media according to said pick order, transferring print jobs of said print batch according to said transfer order, and delivering said media according to said delivery order.

21. The system of claim 19, and further comprising means for forming an image on said media.

22. The method of claim 1, wherein independently determining transfer order is based on image complexity, image size, or data transfer time.

23. The method of claim 1, wherein independently determining pick order is based on expected pick time.

24. The method of claim 1, wherein independently determining pick order, transfer order, and delivery order is based on size of the print job in terms of memory space required

25. The method of claim 1, wherein independently determining pick order, transfer order, and delivery order is based on color scheme.

26. The method of claim 1, wherein independently determining pick order, transfer order, and delivery order is based on image complexity of the print jobs in the print batch.

IX. EVIDENCE APPENDIX

Not applicable.

X. RELATED PROCEEDINGS APPENDIX

Not applicable.